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International Institute for the Unification of Private Law
Institut international pour l'unification du droit privé

Digital Assets and Insolvency

A Transnational Law Analysis

Professor Ignacio Tirado

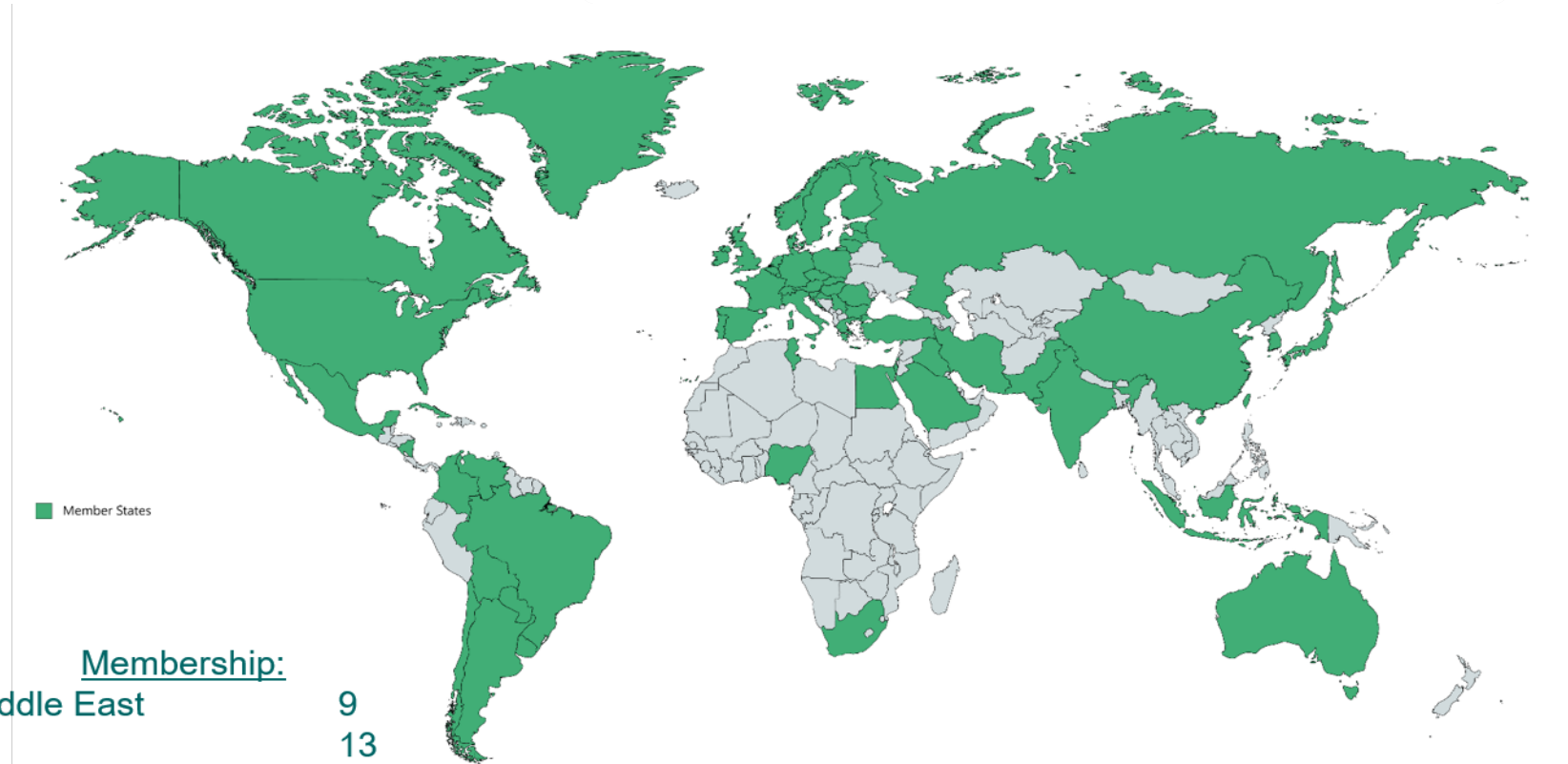
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Introduction to UNIDROIT

Established in 1926 as an auxiliary organ of the League of Nations, UNIDROIT comprises 65 member States which cover over 74% of the world population and over 90% of global nominal GDP.

Purpose to develop methods for modernising, harmonising and co-ordinating international private and commercial law and to formulate uniform law instruments, principles and rules.



Membership:

Africa and Middle East	9
Americas	13
Asia & Pacific	7
Europe	34

Structure:
Governing Council

General Assembly

Secretariat

Working Groups and Committees



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Prius:

is it justified to have a special regime for digital assets?

If so, how?

- Scope: enforcement and insolvency. A question valid for both
- Legal Nature of cryptocurrencies and its consequences for enforcement/insolvency law
- The insolvency of the direct holder of cryptocurrencies
- The insolvency of the intermediary/custodian



Digital Assets and Private Law: the Project

- 2020-2022 Work Programme, a UNIDROIT Working Group established to develop legal instrument containing principles and legislative guidance in the area of private law and digital assets.
- Project to provide legislative guidance and develop best practices and international standards, enabling jurisdictions to take common approach to legal issues relating to the legal nature, transfer and use of digital assets.
- Variety of digital assets covered: cryptocurrencies (Bitcoin, Ethereum) digital tokens linked to real world (gold), or real estate.
- The principle of technological neutrality is key to ensure relevance (i.e., not just DLT). Areas of key commercial importance such as:
 - legal position of intermediaries (exchanges and custodians)
 - secured transactions
 - insolvency,
 - and the identification of the applicable law in cross-border transactions



- Experts represent different legal systems with expertise in a number of relevant fields such as property law or secured transactions.
- Several international, regional, and private organisations in the Working Group:
 - Uniform Law Commission (US)
 - The World Bank Group
 - UNCITRALThe International Monetary Fund (IMF)
 - The Hague Conference on Private International Law (HCCH)
 - The European Central Bank (ECB)
 - The European Banking Authority (EBA)
 - The American Law Institute (ALI)
 - The Central Bank of Italy (Banca d'Italia)
 - Kozolchyk National Law Center (NatLaw)
 - The Law Commission of England and Wales
 - Asociación Americana de Derecho Internacional Privado (ASADIP)



Insolvency and Digital Assets: General Remarks

- Scope: enforcement and insolvency. A question valid for both
- Many types of Digital Assets:
- Bitcoin as example:



Bitcoin is the record, contained in code recorded on the blockchain, of a series of transactions recording the “creation” and “transfer” of “something”. That subject matter of that record, the bitcoin, is not even a piece of code. What the “owner” of bitcoin has is the ability to generate a transfer, in return for which the transferee is prepared to transfer valuable consideration, which is likely to be fiat or cryptocurrency, or a real-world asset.




A representation of transactions on ledger + public record + private key



Is a such “reality” possibly subject to property rights?

- Transferability
- Exclusivity, etc



- Endogenous tokens: those that do not relate to anything existing outside the blockchain. E.g.: Bitcoin  Focus of the analysis
- Exogenous tokens: have a necessary connection with assets existing outside the blockchain (e.g., securities): **Analogy easier**

Definition of UPDAPL: *an electronic record which is capable of being subject to control*

the digital asset, or the relevant protocol or system, confers on that person:

- (i) the exclusive ability to prevent others from obtaining substantially all of the benefit from the digital asset;*
- (ii) the ability to obtain substantially all of the benefit from the digital asset; and*
- (iii) the exclusive ability to transfer the abilities in sub- paragraphs (a)(i), (a)(ii) and (a)(iii) to another person*

General Remarks (II) (cont.)

Does this matter for purposes of insolvency estate?

I don't think so: **Universality Principle** + **Value inherent to cryptocurrency...**

- Moscow Arbitrazh Court, March 2018: *The Russian courts have also considered the issue in an insolvency context. Bankrupt disclosed having bitcoin, but argued it was not form of property known to Russian law, and hence out of reach of IP. Successful on 1 instance, decision was overturned on appeal, on the grounds that creditors could not be deprived of value that is the property of the debtor unless expressly excluded by law.*
- Unreasonable results

- Need to draw **analogy with treatment of intangibles** (intellectual property, etc)



- Several **jurisdictions legislate** to clarify for **ST and Insolvency purposes**

Direct Holding of Cryptocurrency by insolvent



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Which characteristics would warrant special treatment?

- Anonymous owner.- Public key will not identify its “owner”. Problem of transparency (why regulatory frameworks grow)
- Need to use a private key.- collaboration of debtor will be necessary
- Widespread use of intermediaries, with different roles.- Granular approach needed
- De-centralised nature of some DA: eliminates centralized entity against which freezing/attachment order can be served
- Very common “international component”

Info needed to locate asassets: hints

- Known or not, bitcoin part of the estate (general inso rule)
- **Possession** of computer/phone/item where bitcoin stored
- Obligation to disclose/provide inventory
 - Criminal offence/punitive damages/civil sanctions may ensue
 - Debtor must **disclose existence** and **provide key** for control
- Case where **Security Right** over bitcoin exists presents fewer problems
 - Secured creditor will know, should hold private key (even public record thru outright transfer)
 - Collection either by direct sale or through IP, depending on system

- Internet browser history
- Internet browser extensions (cryptowallets)
- Cryptocurrency wallet downloads
- Transfers between bank accounts/exchanges
- E-mail evidencing login-transactions
- Logs from secod factor identification



*Tracing of those using public key,
but identity of given actor that
authorised a transaction not*

Insolvency and Digital Assets: Indirect Holding

- Countries which divide property into tangible and intangible may limit property rights on the latter. Some relevant early case law (origin of insolvencies, hacks):
 - **Mt. Gox in Japan**: court decided that assets were not subject to property law, which meant that the clients had only **contractual claim** against Mt. Gox, once Japan's largest bitcoin exchange. Other cases:
 - **Bitgrail, Italian law**: assets were treated as proprietary. However, treated as being mixed by custodian with other assets, which resulted in the clients only having a contractual claim against the custodian
 - **Cryptopia insolvency in New Zealand**: assets were considered as commingled with other clients' assets, but the courts assumed that a trust had come into place. A property law interest was therefore found to exist in the assets held by Cryptopia for its clients. (...)
- Recent cases, especially in the US, have presented similar problems and legal analysis by the courts has been relatively similar (origin of insolvencies, business-related):
 - **Voyager, Celsius, FTX, BlockFi, Genesis**
 - **Chapter 11 Bankruptcy Code applied (...)**





Holding of Cryptocurrency by Intermediary/Custodian: Analogy with intermediated securities?



- Many different forms of intermediaries and custodians, each with their specificities and possible bespoke rules in insolvency. Btw, isn't this a **contradiction**?
- Convenient to differentiate the two main functions:
 - **Exchange service providers** (e.g. crypto-fiat exchange service providers)
 - **Custodians** (store of bitcoin)
- Custodian stores/controls private keys and public keys with which the bitcoin are associated... but what is this exactly?



- Custodian owns bitcoin and owes personal obligation to the client to carry out its instructions
- Custodian only owes personal duties to the client in relation to safe custody of the private key



Importance of distinction in case of insolvency of intermediary

Otherwise IP of debtor orders intermediary to transfer bitcoin

Holding of Cryptocurrency by Intermediary/Custodian (II) (cont.): the insolvency of the intermediary



- In principle, **ordinary insolvency law will apply** (unlike financial institutions)

Question boils down to the question if clients have a **proprietary** (Trust? Bailment?) **or personal claim** over bitcoins held by insolvent custodian

If proprietary, “owner” can **claim delivery** –or realisation and appropriation of proceeds



If personal, “owner” left with a claim **ranking pari-passu**

Analysis may vary according to **applicable law**, but cryptocurrencies an **international asset**, transactions are cross-border: a case for **effective harmonization initiative**

- US case law is approaching the question on **ad hoc basis**: will depend on the **agreement** between clients and intermediaries: e.g., Celsius, 3 types of accounts, beyond pure custody merely personal claim
- Also depends on **type of account**:
 - Separate/segregated accounts
 - Common/omnibus accounts (remember the Italian case, Bitgrail)



Holding of Cryptocurrency by Intermediary/Custodian (III) (cont.): the insolvency of the intermediary

- **Analogy** with intermediated securities: the need to **protect the client****. **Possible solutions:**
 - Legal obligation for custodians to **sufficiently identify assets with clients**. This is indeed possible based on the functioning of the blockchain
 - Legal obligation **to segregate assets of clients from those of investors**, to avoid comingling
 - Need to provide adequate rule to allocate rights between clients in common accounts
 - In Civil Law countries, this might require **ad hoc legislation**; can be achieved through **trust/bailment** in Common Law jurisdictions

SOLUTION IN UNIDROIT PRINCIPLES FOR CUSTODIANS (Principle XIII):



- DA noy available for distribution to creditors of custodian (agnostic about insolvency estate question)
 - Applicability to sub-custody
- (4) If a custodian enters into an insolvency-related proceeding, the insolvency representative must take reasonable steps:
- (a) for the control of a digital asset maintained for the custodian’s client to be changed to the control of that client or of a custodian nominated by that client;
- (5) Paragraphs (6) and (7) apply if all of the following requirements are fulfilled:
- (a) C enters into insolvency-related proceeding;
 - (b) DA of same description are maintained by the custodian for two or more clients as an undivided pool; and
 - (c) quantity of DA maintained is less than aggregate quantity of DA of same description that it is obliged to maintain for those clients ('shortfall').
- [(6) The shortfall is met first by any digital assets of the same description maintained by the custodian for itself.]¹
- (7) Any [remaining] shortfall shall be borne by the clients for whom the custodian maintains the digital assets as an undivided pool, in proportion to the respective quantity of digital assets of the same description that the custodian is obliged to maintain for those clients.



Thank you